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## Preface

This Special Issue contains papers solicited from talks presented at EUROCOMB '03 held in Prague, September 8–12, 2003. The contributions for EUROCOMB '03 were selected by the Programme Committee consisting of the following colleagues:

Martin Aigner (Berlin)  
 Noga Alon (Tel Aviv)  
 Peter Cameron (London)  
 Bruno Codenotti (Pisa)  
 Pavol Hell (Vancouver)  
 Gyula O. H. Katona (Budapest)  
 Jiří Matoušek (Prague)  
 Jaroslav Nešetřil (Prague, chair)  
 Andre Raspaud (Bordeaux)  
 Vojtěch Rödl (Atlanta)  
 Oriol Serra (Barcelona)  
 Carsten Thomassen (Copenhagen)  
 Günter M. Ziegler (Berlin).

Abstracts were published as ITI Series 2003-145 (ISBN 80-239-1185-6) by the Institute of Theoretical Computer Science (ITI) in Prague. The contributions to this Special Issue include final versions of some of the papers presented at EUROCOMB. In addition we solicited a few additional contributions which we believe nicely complement this issue. This Special Issue of *Discrete Mathematics* covers some of the main trends in contemporary algorithmic combinatorics.

Two papers are devoted to the recently intensively studied channel assignment problem (papers by Bazzaro, Monrassier and Raspaud and by Fertin and Raspaud). Two papers deal with oriented graphs (tournaments—Beigman and transitive orientations by Habib, Kelly, Lebhar and Paul). Two papers study in detail path problems in hypercubes (Caha and Koubek, and Dvořák and Gregor) while various coloring problems are studied by Chlebíková and Jansen (extension of precolorings) and Diaz, Serna and Thilikos (H-coloring). Properties of various structures related to packing problems are treated in papers by Janata (a new type of matroidal families) and Tiskin (a packing of tripods). Here belongs as well the axiomatic treatment of path systems in a graph (Nebeský). Complexity of various graph decompositions is considered in papers by Dourisboure and Gavaille and by Goncalves (arboricity). Structural questions motivated by algorithm analysis are considered in papers by Choi and Guan (cubic subgraphs) and Nigussie (algorithms for minor closed classes). Finally the issue contains two papers with more applied flavor. One by Finbow, King, MacGillivray and Rizzi and one by Ibaraki and Suzuki motivated by mathematical biology.

We thank all authors for their contributions.

I thank all members of the Programme Committee and all our reviewers for their very good work. I also thank Jiří Fiala who technically administered the above mentioned abstract ITI Series volume.

The preparation of this Special Issue relied on the work of Martin Bálek (Prague), who was responsible for most of the communications with authors and reviewers. Without his help the publication of the issue would not be possible.

The publication of this volume is also made possible by the support of the European network Combstru and by the Institute for Theoretical Computer Science (ITI), supported by the Ministry of Education of the Czech Republic as project LN00A056 and 1M0021620808.

*Invited talks at Eurocomb '03 were given by:*

- W. Cook: Planar Graphs, Parallel Computing, and the Travelling Salesman Problem
- M. Fiedler: Algebraic Connectivity—30 Years After
- B. Gerards: On the Structure of Matrices and Matroids
- M. Grötschel: Combinatorics and Telecommunication
- T. Łuczak: Phase Transition Phenomena in Random Discrete Structures
- J. Spencer: LIAR!
- R. Thomas: The Strong Perfect Graph Theorem

*European Prize in Combinatorics awarded:*

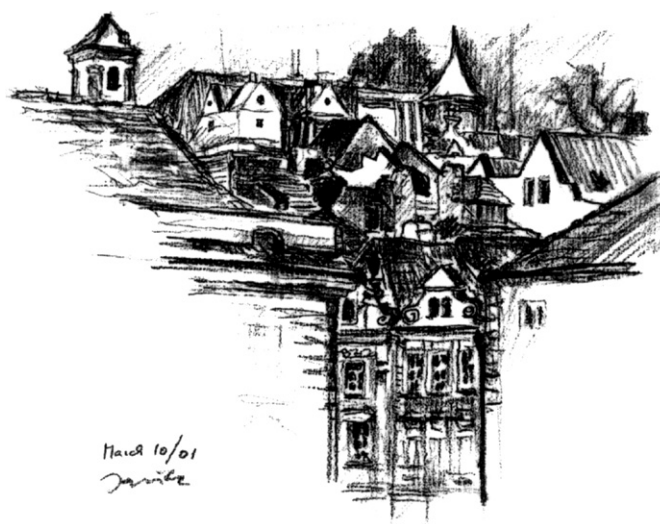
The European Prize in Combinatorics is established by the European Research and Training Network COMBSTRU and by the centre DIMATIA to recognize excellent contributions in Combinatorics by young researchers not older than 35. It is awarded biannually in conjunction with the meeting EUROCOMB. The first prize was presented at the European Combinatorial Conference EUROCOMB'03 held in Prague carrying a monetary award of 2500 Euros. The award was funded by the contributions of private companies, DIMATIA and COMBSTRU.

The Prize Committee for this first edition consisted of Jaroslav Nešetřil, Chair (Prague), Vera T. Sós (Budapest) and Alexander Schrijver (Amsterdam).

Two prizes were awarded:

- jointly to DANIELA KÜHN and DERYK OSTHUS (Germany)—for extensive collection of results in the core graph theory devoted to the study of graph minors, random structures, particularly in their relationship to Hadwiger's conjecture.
- to ALAIN PLAGNE (France)—for extensive work in combinatorial number theory and for solution of several open problems employing different techniques on the borderline of combinatorics and number theory.

Jaroslav Nešetřil





Conference photo by J. Tüma